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Mauricio A. Melgarejo
Butler University, mmelgare@butler.edu

Eduardo Montiel

Luis Sanz

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The Stock Market's Reaction to Accounting Information: The Case of the Latin American Integrated Market

Abstract

The purpose of this paper is to explore the stock market's reaction to quarterly financial statements. We focus our study in two countries that are participating in the Latin American Integrated Market (MILA): Peru and Chile. We find that the cumulative abnormal returns and the absolute value of the cumulative abnormal trading are explained principally by the quarterly earnings surprises around the financial statements release date. We find that these effects are more pronounced in small firms, confirming that due to the lower level of pre disclosure information accounting numbers are the main source of information.

Key words: Accounting Information, Stock Markets, Small Firms.

Introduction

One important research area in financial accounting tries to determine whether the data contained in the firms' financial statements provide information to change investors' perceptions about firms' future value and risk. The purpose of this paper is to study the stock price and volume reactions around firms' earnings announcement dates in two Latin American stock markets: Chile and Peru. These two countries participate in the recently formed Latin American Integrated Stock Market.

In June 2010, Chile, Peru and Colombia formally combined operations of their stock markets to form the Latin American Integrated Market (MILA). By the end of 2010, MILA was the region's second largest market after ~~Brazil~~ in terms of market capitalization, at \$691 billion, and the largest in Latin America in terms of the number of companies listed, 565.

Several papers have studied whether the accounting numbers provide relevant information to the market. We use the same notion of information content as expressed by Kothari (2001): "If the level or variability of prices changes around the event date, then the conclusion is that the accounting event conveys new information about the amount, timing, and/or uncertainty of future cash flows that revised the market's previous expectations." Lev (1989) also argues that accounting information is value relevant if changes in stock price or volume resulting from investor actions can be attributed to this specific information.

Higher levels of economic and business - related uncertainty have characterized Latin American Economies in the last decade (Pablo, 2009). In this context, we expect that the information provided by firms' financial statements helps investors providing relevant information to determine firms' value and to evaluate the risk associated with their investments. As a result, we hypothesize that the market reaction around the earnings announcement dates (stock prices changes and volume traded), is driven by the earnings surprises.

The results in this paper show that the changes in quarterly earnings per share (eps) explain stock abnormal returns around the earnings announcement dates in the Santiago (Chile) and Lima (Peru) stock exchanges. In addition, the absolute value of the change in eps explains firms' abnormal trading observed in the market around the accounting information release date in both countries. Consistent with previous studies, we also find that these two effects are driven by small firms, which have lower levels of disclosure of information before the date when accounting numbers are made public. This study adds to the accounting literature providing evidence of the value relevance of accounting information in the context of Latin American stock markets.

This paper proceeds as follows. In the next section we review the literature about the impact of accounting information on capital markets. Then, we describe the research design and the sample selection used in this paper. Finally, we present and discuss the main results and conclude the paper.

Literature review

Ball and Brown (1968) and Beaver (1968) were the first authors to test empirically the utility of the accounting information. Beaver (1968) argues that price change reflects the average change in investors' beliefs attributable to an announcement, and therefore the variability of price changes is likely to be more pronounced around the earnings announcement date. In addition, trading volume reflects idiosyncratic interpretations of the announcement. Consequently, the greater the information content of an announcement, the more likely investors will interpret the content dissimilarly and thus the more they will trade as a result of their dissimilar interpretations. His sample included annual earnings announcements of 143 firms listed on the New York Stock Exchange (NYSE) that had non-12/31 fiscal year-ends. Beaver found that around the earnings announcement weeks, price fluctuations were 67 percent higher and mean trading volume was 33 percent larger than in a non-report period (eight weeks before and after the announcement). He concludes earnings announcements have information value that incentives investors to trade.

Bamber (1986; 1987) also provides early empirical evidence on the determinants of trading volume reactions to earnings announcements. She shows that trading around earnings announcements increases with the absolute magnitude of the earnings surprise and finds that trading around firms' annual earnings announcements is more strongly associated with random-walk-based earnings surprise than with analysts' forecast-based earnings surprise.

There is also evidence about the value relevance of accounting information in the international context. DeFond, Hung, and Trezevant (2007) find that annual earnings announcements contain more information for firms in countries with higher quality earnings, better enforced insider trading laws, and stronger investor protection institutions. Griffin, Hirschey and Kelly (2010) find that accounting numbers are more relevant in countries with stronger accounting standards. Overall, these studies find the information content of earnings announcements is higher in settings in which investors find the accounting information more reliable.

Accounting data might be an important source of information in countries with a relative high degree of uncertainty. Therefore, our first prediction is that abnormal stock returns and abnormal trading are associated with the magnitude of the earnings surprises around the earnings announcement dates.

Atiase (1985) documents a size effect on the stock price reaction to quarterly earnings announcements. He finds that firm size was inversely related to the stock price revaluation around a firm's quarterly earnings announcement. Because earnings announcements represent a smaller proportion of the total information available for large firms relative to small firms and because of the relatively low levels of predislosure information regarding small firms, Bamber (1986) argues that investors are likely to find earnings announcement more informative for small firms. Accordingly, our second hypothesis is that the stock price and volume reactions to earnings announcements are more pronounced for small firms.

Research Design

To study the market reaction to the release of firms' accounting information in the countries participating in the Latin American Integrated Market, MILA, we estimate the coefficients of the following two models:

$$Car_{i,q} = \alpha_0 + \alpha_1 ch_eps_{i,q} + \alpha_2 div_{i,q} + \alpha_3 size_{i,q} + \alpha_4 bm_{i,q} + \alpha_5 lev_{i,q} + \alpha_6 year\ dummies + \varepsilon_{i,q} \quad (1)$$

$$Abs_Cat_{i,q} = \alpha_0 + \alpha_1 abs_ch_eps_{i,q} + \alpha_2 div_{i,q} + \alpha_3 size_{i,q} + \alpha_4 bm_{i,q} + \alpha_5 lev_{i,q} + \alpha_6 Year\ dummies + \varepsilon_{i,q} \quad (2)$$

Since we have several observations per firm in our sample, to control for autocorrelation in the regression residuals and therefore for bias in the coefficients' standard errors, we compute standard errors clustered by firm (Rogers, 1993, Petersen 2009) to test the statistical significance of the coefficients.

The first equation tests whether accounting information impacts stock prices around the earnings announcement date. The dependent variable, $Car_{i,q}$, is the firm i 's cumulative abnormal returns around, from one day before to one day after $[-1,1]$, quarter q earnings announcement date. To compute Car we use a market model to estimate the firms' expected returns. Specifically, we estimate the coefficients of the following model for each firm during the estimation period from 60 days to 2 days before the earnings announcement day:

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} \quad (3)$$

$R_{i,t}$ is the firm i 's stock return in day t and $R_{m,t}$ is the market return in day t . We use the mean return of all firms traded in the stock market as our measure of market return. Using the estimated coefficients, we compute for each firm the expected return during the event period $[-1, 1]$. We subtract this expected return from the actual returns observed in the market for each firm to compute the abnormal returns during the event period. Finally, we accumulate the returns during the three-day period to compute the cumulative abnormal returns.

The main independent variable in the first equation is the change in earnings ($ch_eps_{i,q}$) which measures firm i 's eps in quarter q minus eps in the same quarter in the previous year. We also control for firms' size measure as the log of total assets at the end of quarter q ($size$), dividends per share paid during quarter q (div), firms' leverage at the end of quarter q (lev) and firms' book to market ratio at the end of quarter q (bm). To control for macro and time effects we include year dummy variables.

The second equation analyzes the impact of the release of accounting data on the trading volume around the earnings announcement date. The dependent variable measures the absolute cumulative abnormal trading around the earnings announcement date. There has been a lot of debate whether to adjust the volume metrics for some estimate of "normal" trading

volume. Tkac (1999) and Lo and Wang (2000) recommend a trading volume analogue to the market model that incorporates both firm-specific and market adjustments. Specifically, we estimate the following model for each firm using a time series regression during the estimation period [-60,-2]:

$$\log (\text{Volume}_{i,t}) = \alpha_i + \beta_i \log (\text{Volume}_{m,t}) \quad (4)$$

$\text{Volume}_{i,t}$ is firm i percentage of shares traded relative to the total number of shares outstanding. This share turnover measure controls for firm size and the fact that the number of shares outstanding and the number of shares traded have grown over time. $\text{Volume}_{m,t}$ is a measure of the percentage of total of shares traded in the market. Using the estimated coefficients of the model we compute the expected volume during the earnings announcement date [-1,1].¹ We subtract this expected number from the actual volume observed in the market to compute firms' abnormal trading. Finally, we aggregate the absolute value of the abnormal trading during the event period to obtain our measure of absolute cumulative abnormal trading for each firm ($\text{Abs_Cat}_{i,q}$). The dependent variables are the absolute value of the earnings surprise ($\text{abs_ch_eps}_{i,q}$), firm size, dividends paid, leverage and year dummy variables. In all models we expect the coefficient α_i to be positive and statistically significant.

Sample Selection

We obtain firms' accounting information, daily stock prices and daily volume traded from Economatica. It includes historical data including quarterly and annual financial statements, earnings announcement dates, daily stock prices, corporate actions (dividends, splits, etc), and the names and holdings of shareholders.² In this study, we focus on public non-financial firms from Chile and Peru, two countries participating in the MILA.³ The sample period is from the first quarter of 2004 to the second quarter of 2011.

In order to be included in our sample a firm must have complete accounting information to compute the main variables in our analysis and must have traded at least 30 days during the estimation period (60 days before the earnings announcement date). The final sample consists of 1,494 observation from Chile and 490 observations from Peru.

Descriptive Statistics and Main Results

Table 1 presents the distribution of the observation by year and country. In Chile most of the observations (34%) are in the Retail, Electronic and Other industries. In Peru, almost a third of the observations are mining firms and 17% of the firms are

1 Morse (1981) finds that most of the volume reaction to earnings announcements occurs on days -1 and 1 relative to the *Wall Street Journal* announcement date for a sample of firms traded in the US stock markets.

2 We use the information presented in US dollars.

3 We exclude Colombia, the third country in the MILA, because we do not have enough observations to estimate the models presented in the study.

food companies. The observations in both countries are divided uniformly by year, around 14% each year, except for 2004 and 2011.

Table 2 shows the descriptive statistics of the main variables in our analysis by country. Almost 63% of the firms report positive earnings surprises in both countries. The mean earnings per share change is US\$ 0.008 for the Chilean companies and US\$ 0.014 for the Peruvian companies. The mean size, measured as the value of total assets, is US\$ 877 million for the companies traded in the Santiago Stock Exchange and US\$ 375 million for the companies traded in the Lima Stock Exchange.

To test whether the accounting information has an impact in the firms' stock prices we compare the mean (median) cumulative abnormal returns for firms reporting a positive earnings surprise (positive change in earnings per share) and firms reporting negative earnings surprises. The univariate results are presented in table 2. Firms reporting positive earnings surprises present positive abnormal return around the earnings announcement date. On the other hand, firms reporting negative changes in eps have negative cumulative abnormal returns during the same period. The difference, in both countries is statistically significant (1% in the case of Chile and 1.1% in the case of Peru).

To control for other factors affecting the market reaction to the release of accounting information, we estimate the coefficients of equation 1. Table 3 presents the results. In the case of Chile, the only variable explaining the market reaction around the earnings announcement date is the change in quarterly earnings per share. As expected, the coefficient α_1 is positive and statistically significant. In the case of Peru, the coefficient of the earnings surprise is also positive and statistically significant. It seems that accounting information has an impact in the investors' perception about firms' future value and profitability in both countries.

We also evaluate the impact of accounting information on the trading volume around the earnings announcement date. Table 4 presents the results of the regression of absolute abnormal trading on the absolute value of earnings surprises and other control variables (equation 2). In the case of Chile and Peru, the absolute value of the earnings surprise is positive and statistically significant. We can conclude accounting information contains value relevant information that motivates investors to trade.

Atiase (1985) argues that the release of accounting information is more informative for small firms. To test this hypothesis we estimate equation 1 for two subsamples of firms, large and small firms. We divide our sample based on the median value of firms' total assets each year. Firms with total assets above the median of all the firms in the sample are included in the large size firms. Table 5 shows the results of the cumulative abnormal returns around the earnings announcement date for the subsamples of firms. As expected, the coefficient of the earnings surprise is only significant for the subsample of small firms (0.072, p-value<0.001, in the case of Chile and 0.028, p-value<0.05, in the case of Peru). In addition, the adjusted coefficient of

determination is larger for this subsample of firms (0.026 vs. 0.017, for the sample of firms from Chile and 0.055 vs. 0.042, for the sample of firms from Peru).

Table 6 shows the coefficients of equation 2 for the subsample of firms based on size. In both cases, the coefficient of the absolute value of the change in earnings per share is only significant for the subsample of small firms (1.341, p-value<0.001 for Chilean firms and 0.0763, p-value<0.001 for Peruvian firms).

Conclusion and Future Research

The evidence provided in this paper supports the value of accounting information in the markets of Peru and Chile. The abnormal stock price change and the abnormal volume traded around the earnings announcement date are explained by the changes in firms' quarterly earnings per share. This effect is stronger in small firms, which is consistent with the idea of lower levels of pre disclosure of information in these firms.

In 2010, Chile adopted the International Financial Reporting Standards (IFRS) and Peru is planning to adopt them at some point in 2012. It'd be interesting, for future research, to test whether the market reaction to earnings announcements is stronger after the implementation of a set of standards that are believed to more informative. In addition, we expect that with the stock market integration, accounting information becomes more important, since investors from different countries will demand more information to diversify their investments in other firms' that are part of MILA.

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Table 1

Distribution by year and year and industry

| Chile | | | Chile | | |
|-------|-----------|---------|-------------------------|-----------|---------|
| year | Frequency | Percent | Industry | Frequency | Percent |
| 2004 | 140 | 9.37 | Agribusiness | 107 | 7.16 |
| 2005 | 208 | 13.92 | Food | 106 | 7.1 |
| 2006 | 229 | 15.33 | Retail | 169 | 11.31 |
| 2007 | 253 | 16.93 | Construction | 52 | 3.48 |
| 2008 | 234 | 15.66 | Electronic | 22 | 1.47 |
| 2009 | 192 | 12.85 | Energy | 167 | 11.18 |
| 2010 | 167 | 11.18 | Insurance | 106 | 7.1 |
| 2011 | 71 | 4.75 | Mutual Funds | 173 | 11.58 |
| | 1494 | | Mining not metal | 69 | 4.62 |
| | | | Mining | 7 | 0.47 |
| | | | Others | 168 | 11.24 |
| | | | Paper | 48 | 3.21 |
| | | | Oil and gas | 49 | 3.28 |
| | | | Chemistry | 45 | 3.01 |
| | | | Sider & Metallurgy | 77 | 5.15 |
| | | | Software | 10 | 0.67 |
| | | | Telecommunication | 26 | 1.74 |
| | | | Transportation Services | 93 | 6.22 |

| Peru | | | Peru | | |
|------|-----------|---------|----------------------|-----------|---------|
| year | Frequency | Percent | Industry | Frequency | Percent |
| 2004 | 51 | 10.40 | Agribusiness | 40 | 8.16 |
| 2005 | 52 | 10.61 | Food | 87 | 17.76 |
| 2006 | 62 | 12.65 | Retail | 23 | 4.69 |
| 2007 | 71 | 14.48 | Construction | 28 | 5.71 |
| 2008 | 70 | 14.28 | Energy | 36 | 7.35 |
| 2009 | 66 | 13.46 | Industrial Machinery | 1 | 0.2 |
| 2010 | 85 | 17.34 | Mining non metals | 38 | 7.76 |
| 2011 | 33 | 6.73 | Mining | 150 | 30.61 |
| | 490 | | Others | 23 | 4.69 |
| | | | Oil and gas | 12 | 2.45 |
| | | | Chemistry | 10 | 2.04 |
| | | | Sider & Metallurgy | 34 | 6.94 |
| | | | Telecommunications | 7 | 1.43 |
| | | | Textile | 1 | 0.2 |

Table 2**Descriptive Statistics by Country**

Definition of variables: Car = Cumulative abnormal returns around [-1,1] the earnings announcement date. Lcar = Cumulative abnormal returns after [2,60] the earnings announcement date. Abs_cat = Absolute value of the cumulative abnormal trading around [-1,1] the earnings announcement date. Ch_eps = Earnings per share in quarter t minus earnings per share in the same quarter in the previous year. Size = log of the total assets. Div = dividends per share paid during the quarter. Lev = Leverage. Bm = Book to market ratio. Pos_ch_eps = 1 if the firm reports positive earnings surprise, 0 otherwise

| Chile | | | | | |
|-----------------|-----------------------|-------------|---------------|-----------------------|----------------|
| Variable | Lower Quartile | Mean | Median | Upper Quartile | Std Dev |
| Car | -0.020 | -0.001 | -0.001 | 0.017 | 0.037 |
| abs_cat | 0.885 | 2.436 | 1.935 | 3.388 | 2.025 |
| pos_ch_eps | 0.000 | 0.633 | 1.000 | 1.000 | 0.482 |
| ch_eps | -0.002 | 0.008 | 0.001 | 0.012 | 0.081 |
| Size | 12.631 | 13.685 | 13.558 | 14.715 | 1.507 |
| Div | 0.000 | 0.024 | 0.000 | 0.012 | 0.067 |
| Lev | 1.687 | 2.394 | 2.113 | 2.813 | 1.181 |
| Bm | 0.431 | 1.250 | 0.715 | 1.163 | 2.265 |

| | Pos ch eps | Neg ch eps | Diff | |
|-----|-------------------|-------------------|-------------|-----|
| Car | 0.007 | -0.003 | 0.010 | *** |

| Peru | | | | | |
|-----------------|-----------------------|-------------|---------------|-----------------------|----------------|
| Variable | Lower Quartile | Mean | Median | Upper Quartile | Std Dev |
| Car | -0.025 | -0.001 | -0.001 | 0.019 | 0.047 |
| abs_cat | 0.937 | 2.286 | 1.911 | 3.282 | 1.707 |
| pos_ch_eps | 0.000 | 0.624 | 1.000 | 1.000 | 0.485 |
| ch_eps | -0.005 | 0.014 | 0.004 | 0.020 | 0.196 |
| size | 12.156 | 12.835 | 13.015 | 13.635 | 1.071 |
| Div | 0.000 | 0.043 | 0.000 | 0.016 | 0.200 |
| Lev | 1.448 | 1.967 | 1.797 | 2.396 | 0.664 |
| Bm | 0.499 | 1.355 | 0.758 | 1.392 | 2.373 |

| | Pos ch eps | Neg ch eps | Diff | |
|-----|------------|------------|-------|-----|
| Car | 0.006 | -0.005 | 0.011 | *** |

***, **, * denote significance at 1%, 5% and 10% respectively; p-values are calculated using robust standard errors clustered by firm.

Table 3
Regression results. CAR dependent Variable

Table 3 presents the regression results of the following model:

$$Car_{i,q} = \alpha_0 + \alpha_1 ch_eps_{i,q} + \alpha_2 div_{i,q} + \alpha_3 size_{i,q} + \alpha_4 bm_{i,q} + \alpha_5 lev_{i,q} + \alpha_6 year\ dummies + \varepsilon_{i,q}$$

Where: $Car_{i,q}$ = Firm i's cumulative abnormal returns around [-1,1] quarter q earnings announcement date. $Ch_eps_{i,q}$ = Firm i's earnings per share in quarter q minus earnings per share in the same quarter in the previous year. Size = Firm i's log of the total assets at the end of quarter q. Div = dividends per share paid during quarter q. Lev = Firm i's Leverage at the end of quarter q. Bm = Firm i's Book to market ratio at the end of quarter q.

| Chile | | Peru | | |
|-----------|----------|---------|---------|----|
| Parameter | Estimate | t Value | Pr > t | |
| Intercept | -0.016 | -1.37 | 0.174 | ** |
| ch_eps | 0.043 | 1.98 | 0.050 | |
| div | 0.005 | 0.56 | 0.576 | |
| size | 0.001 | 1.07 | 0.286 | |
| bm | 0.000 | 0.07 | 0.946 | |
| lev | 0.001 | 1.14 | 0.258 | |
| year_2004 | 0.002 | 0.42 | 0.674 | |
| year_2005 | -0.001 | -0.37 | 0.715 | |
| year_2006 | -0.002 | -0.52 | 0.602 | |
| year_2008 | 0.002 | 0.47 | 0.642 | |
| year_2009 | 0.004 | 1.37 | 0.174 | |
| year_2010 | 0.000 | -0.07 | 0.947 | |

| Parameter | Estimate | t Value | Pr > t | |
|-----------|----------|---------|---------|----|
| Intercept | -0.016 | -0.67 | 0.503 | ** |
| ch_eps | 0.014 | 1.99 | 0.049 | |
| div | 0.008 | 0.73 | 0.471 | |
| size | 0.001 | 0.77 | 0.445 | |
| bm | -0.001 | -1.3 | 0.199 | |
| lev | -0.006 | -2.18 | 0.034 | |
| year_2004 | -0.003 | -0.35 | 0.728 | |
| year_2005 | 0.015 | 2.19 | 0.034 | |
| year_2006 | 0.015 | 1.56 | 0.125 | |
| year_2008 | 0.022 | 3.16 | 0.003 | |
| year_2009 | 0.014 | 1.68 | 0.100 | * |
| year_2010 | 0.006 | 0.81 | 0.421 | |

| | | |
|--------|-------|--|
| N | 1493 | |
| Adj_R2 | 0.020 | |

| | | |
|--------|-------|--|
| N | 490 | |
| Adj_R2 | 0.044 | |

***, **, * denote significance at 1%, 5% and 10% respectively; p-values are calculated using robust standard errors clustered by firm.

Table 4
Regression Results. Abs_Cat dependent Variable

Table 5 presents the regression results of the following model:

$$\text{Abs_Cat}_{i,q} = \alpha_0 + \alpha_1 \text{abs_ch_eps}_{i,q} + \alpha_2 \text{div}_{i,q} + \alpha_3 \text{size}_{i,q} + \alpha_4 \text{bm}_{i,q} + \alpha_5 \text{lev}_{i,q} + \alpha_6 \text{Year dummies} + \varepsilon_{i,q}$$

Where: Abs_catt_{i,q} = Firm i's absolute cumulative abnormal trading around [-1,1] quarter q earnings announcement date.
Abs_ch_eps_{i,q} = Firm i's absolute value of earnings per share in quarter q minus earnings per share in the same quarter in the previous year. Size = Firm i's log of the total assets at the end of quarter q. Div = dividends per share paid during quarter q. Lev = Firm i's Leverage at the end of quarter q. Bm = Firm i's Book to market ratio at the end of quarter q.

| Chile | | | Peru | |
|------------|----------|---------|---------|-----|
| Parameter | Estimate | t Value | Pr > t | |
| Intercept | 5.776 | 6.53 | <.0001 | *** |
| abs_ch_eps | 0.103 | 3.11 | <.0001 | *** |
| size | -0.270 | -4.17 | <.0001 | |
| bm | -0.001 | -0.05 | 0.961 | ** |
| lev | 0.126 | 2.37 | 0.020 | |
| year_2004 | 0.121 | 0.53 | 0.598 | |
| year_2005 | 0.057 | 0.35 | 0.730 | |
| year_2006 | 0.128 | 0.92 | 0.360 | |
| year_2008 | 0.254 | 1.35 | 0.180 | |
| year_2009 | -0.107 | -0.61 | 0.544 | |
| year_2010 | -0.093 | -0.54 | 0.591 | |

| | | |
|--------|-------|--|
| N | 1493 | |
| Adj_R2 | 0.042 | |

| Parameter | Estimate | t Value | Pr > t | |
|------------|----------|---------|---------|-----|
| Intercept | 0.190 | 0.19 | 0.850 | |
| abs_ch_eps | 0.442 | 4.12 | 0.001 | *** |
| size | 0.180 | 2.11 | 0.040 | ** |
| bm | -0.001 | -0.03 | 0.975 | |
| lev | -0.011 | -0.1 | 0.917 | |
| year_2004 | 0.041 | 0.11 | 0.910 | |
| year_2005 | -0.334 | -1.58 | 0.122 | |
| year_2006 | 0.283 | 1.04 | 0.304 | |
| year_2008 | -0.019 | -0.05 | 0.957 | |
| year_2009 | -0.073 | -0.28 | 0.781 | |
| year_2010 | -0.609 | -3.2 | 0.003 | ** |

| | | |
|--------|-------|--|
| N | 490 | |
| Adj_R2 | 0.049 | |

***, **, * denote significance at 1%, 5% and 10% respectively; p-values are calculated using robust standard errors clustered by firm.

Table 5

Regression Results. CAR dependent Variable by firm size

Table 5 presents the regression results of the following model by firm size:

$$Car_{i,q} = \alpha_0 + \alpha_1 ch_eps_{i,q} + \alpha_2 div_{i,q} + \alpha_3 size_{i,q} + \alpha_4 bm_{i,q} + \alpha_5 lev_{i,q} + \alpha_6 \text{year dummies} + \varepsilon_{i,q}$$

Where: $Car_{i,q}$ = Firm i's cumulative abnormal returns around [-1,1] quarter q earnings announcement date. $Ch_eps_{i,q}$ = Firm i's earnings per share in quarter q minus earnings per share in the same quarter in the previous year. Size = Firm i's log of the total assets at the end of quarter q. Div = dividends per share paid during quarter q. Lev = Firm i's Leverage at the end of quarter q. Bm = Firm i's Book to market ratio at the end of quarter q.

| Chile - Small Firms | | Chile - Large Firms | |
|---------------------|----------|---------------------|---------|
| Parameter | Estimate | t Value | Pr > t |
| Intercept | -0.037 | -1.51 | 0.131 |
| ch_eps | 0.072 | 3.09 | 0.002 |
| Div | -0.009 | -0.46 | 0.649 |
| Size | 0.003 | 1.43 | 0.152 |
| Bm | 0.000 | 0.18 | 0.856 |
| Lev | 0.000 | 0.03 | 0.976 |
| year_2004 | 0.002 | 0.4 | 0.688 |
| year_2005 | -0.001 | -0.11 | 0.909 |
| year_2006 | -0.002 | -0.49 | 0.622 |
| year_2008 | 0.000 | -0.04 | 0.972 |
| year_2009 | 0.002 | 0.44 | 0.663 |
| year_2010 | 0.002 | 0.26 | 0.797 |
| N | 745 | | |
| Adj_R2 | 0.026 | | |

| Parameter | Estimate | t Value | Pr > t |
|-----------|----------|---------|---------|
| Intercept | -0.001 | -0.03 | 0.977 |
| ch_eps | -0.035 | -1.39 | 0.165 |
| Div | 0.006 | 0.56 | 0.578 |
| Size | 0.000 | -0.19 | 0.848 |
| Bm | -0.001 | -1.74 | 0.083 |
| Lev | 0.002 | 1.6 | 0.100 |
| year_2004 | 0.001 | 0.22 | 0.828 |
| year_2005 | -0.002 | -0.5 | 0.614 |
| year_2006 | -0.001 | -0.32 | 0.752 |
| year_2008 | 0.004 | 0.83 | 0.406 |
| year_2009 | 0.004 | 0.99 | 0.322 |
| year_2010 | -0.002 | -0.43 | 0.669 |
| N | 748 | | |
| Adj_R2 | 0.017 | | |

| Peru - Small firms | | Peru - Large Firms | |
|--------------------|----------|--------------------|---------|
| Parameter | Estimate | t Value | Pr > t |
| Intercept | 0.000 | 0.01 | 0.992 |
| ch_eps | 0.028 | 2.06 | 0.047 |
| Div | 0.021 | 3.57 | 0.001 |
| Size | -0.001 | -0.21 | 0.835 |
| Bm | 0.000 | -0.24 | 0.813 |
| Lev | -0.008 | -1.61 | 0.118 |
| year_2004 | 0.013 | 0.92 | 0.362 |
| year_2005 | 0.024 | 2.27 | 0.030 |
| N | | | |
| Adj_R2 | | | |

| Parameter | Estimate | t Value | Pr > t |
|-----------|----------|---------|---------|
| Intercept | -0.179 | -1.92 | 0.069 |
| ch_eps | 0.008 | 0.69 | 0.496 |
| div | -0.023 | -2.05 | 0.054 |
| size | 0.013 | 2.07 | 0.051 |
| bm | -0.002 | -2.3 | 0.032 |
| lev | 0.001 | 0.29 | 0.774 |
| year_2004 | -0.014 | -1.3 | 0.209 |
| year_2005 | 0.010 | 1.25 | 0.227 |
| N | | | |
| Adj_R2 | | | |

| | | | | |
|-----------|-------|------|-------|-----|
| year_2006 | 0.029 | 1.85 | 0.073 | * |
| year_2008 | 0.036 | 3.26 | 0.003 | *** |
| year_2009 | 0.024 | 2.01 | 0.052 | * |
| year_2010 | 0.020 | 1.81 | 0.079 | * |
| N | 244 | | | |
| Adj_R2 | 0.055 | | | |

| | | | | |
|-----------|--------|-------|-------|---|
| year_2006 | 0.003 | 0.34 | 0.734 | |
| year_2008 | 0.004 | 0.38 | 0.711 | |
| year_2009 | 0.001 | 0.1 | 0.921 | |
| year_2010 | -0.016 | -1.95 | 0.066 | * |
| N | 246 | | | |
| Adj_R2 | 0.042 | | | |

Table 6

Regression Results. Abs_Cat dependent Variable by firm size

Table 6 presents the regression results of the following model:

$$\text{Abs_Cat}_{i,q} = \alpha_0 + \alpha_1 \text{bas_ch_eps}_{i,q} + \alpha_2 \text{div}_{i,q} + \alpha_3 \text{size}_{i,q} + \alpha_4 \text{bm}_{i,q} + \alpha_5 \text{lev}_{i,q} + \alpha_6 \text{Year dummies} + \varepsilon_{i,q}$$

Where: $\text{Aba_Cat}_{i,q}$ = Firm i's absolute cumulative abnormal trading around [-1,1] quarter q earnings announcement date. $\text{Ch_eps}_{i,q}$ = Firm i's earnings per share in quarter q minus earnings per share in the same quarter in the previous year. Size = Firm i's log of the total assets at the end of quarter q. Div = dividends per share paid during quarter q. Lev = Firm i's Leverage at the end of quarter q. Bm = Firm i's Book to market ratio at the end of quarter q.

| Chile - Small Firms | | | | |
|---------------------|----------|---------|---------|-----|
| Parameter | Estimate | t Value | Pr > t | |
| Intercept | 8.893 | 5.16 | <.0001 | |
| abs_ch_eps | 1.341 | 4.34 | <.0001 | *** |
| Size | -0.470 | -3.14 | 0.002 | *** |
| Bm | 0.006 | 0.14 | 0.893 | |
| lev | 0.282 | 4.21 | 0.001 | *** |
| year_2004 | 0.230 | 0.86 | 0.392 | |
| year_2005 | 0.059 | 0.28 | 0.784 | |
| year_2006 | 0.122 | 0.66 | 0.515 | |
| year_2008 | 0.188 | 0.74 | 0.463 | |
| year_2009 | -0.054 | -0.23 | 0.820 | |
| year_2010 | 0.304 | 1.51 | 0.137 | |
| N | 745 | | | |
| Adj_R2 | 0.062 | | | |

| Chile - Large Firms | | | | |
|---------------------|----------|---------|---------|---|
| Parameter | Estimate | t Value | Pr > t | |
| Intercept | 1.480 | 1.17 | 0.245 | |
| abs_ch_eps | 0.646 | 0.72 | 0.472 | |
| Size | 0.111 | 1.1 | 0.273 | |
| Bm | -0.020 | -1.23 | 0.223 | |
| lev | 0.009 | 0.15 | 0.879 | |
| year_2004 | -0.049 | -0.14 | 0.892 | |
| year_2005 | 0.051 | 0.2 | 0.843 | |
| year_2006 | 0.111 | 0.51 | 0.613 | |
| year_2008 | 0.255 | 0.91 | 0.365 | |
| year_2009 | -0.252 | -0.89 | 0.378 | |
| year_2010 | -0.486 | -1.91 | 0.060 | * |
| N | 748 | | | |
| Adj_R2 | 0.014 | | | |

| Peru -Small Firms | | | | |
|-------------------|----------|---------|---------|--|
| Parameter | Estimate | t Value | Pr > t | |

| Parameter | Estimate | t Value | Pr > t | |
|-----------|----------|---------|---------|--|
|-----------|----------|---------|---------|--|

| | | | | |
|------------|--------|-------|-------|-----|
| Intercept | 0.432 | 0.28 | 0.780 | |
| abs_ch_eps | 0.763 | 5.23 | 0.000 | *** |
| size | 0.133 | 0.99 | 0.328 | |
| bm | -0.031 | -0.4 | 0.691 | |
| lev | 0.021 | 0.13 | 0.899 | |
| year_2004 | 0.430 | 0.73 | 0.473 | |
| year_2005 | -0.364 | -0.98 | 0.332 | |
| year_2006 | 0.603 | 1.65 | 0.100 | * |
| year_2008 | 0.243 | 0.61 | 0.545 | |
| year_2009 | 0.209 | 0.62 | 0.542 | |
| year_2010 | -0.164 | -0.62 | 0.538 | |
| N | 244 | | | |
| Adj_R2 | 0.059 | | | |

| | | | | |
|------------|--------|-------|-------|-----|
| Intercept | -3.244 | -0.86 | 0.398 | |
| abs_ch_eps | 0.383 | 0.8 | 0.433 | |
| size | 0.460 | 1.68 | 0.100 | * |
| bm | -0.023 | -0.83 | 0.418 | |
| lev | -0.026 | -0.14 | 0.888 | |
| year_2004 | -0.400 | -0.66 | 0.517 | |
| year_2005 | -0.249 | -0.87 | 0.396 | |
| year_2006 | -0.005 | -0.01 | 0.990 | |
| year_2008 | -0.364 | -0.52 | 0.609 | |
| year_2009 | -0.518 | -1.16 | 0.261 | |
| year_2010 | -1.203 | -4.33 | 0.000 | *** |
| N | 246 | | | |
| Adj_R2 | 0.034 | | | |

***, **, * denote significance at 1%, 5% and 10% respectively; p-values are calculated using robust standard errors clustered by firm.